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### Household income, living standards and financial stress

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#### INTRODUCTION

An important focus of public policy is to ensure acceptable living standards for all Australians. A key element in assessing people's living standards is their command over goods and services which they consume to support their standard of living. In Australia's context such an assessment usually rests not on absolute measures of minimum standards, such as might exist in an economy where getting enough food to survive was a critical challenge, but on a relative measure such as societal expectations of a reasonable Australian standard of living.

In 1998-1999, for the first time, ABS included some questions in the Household Expenditure Survey (HES) which might indicate households were experiencing some degree of deprivation or financial stress. However, interpreting responses to individual questions in isolation can potentially be misleading. This article explores some of the issues in measuring relative living standards using these data and presents some preliminary analysis of the characteristics of households which indicated varying levels of deprivation and financial stress. The ABS would welcome comments on the future use of the indicators used in the 1998-1999 HES.

#### INCOME AND STANDARDS OF LIVING

While a household's command over goods and services may in part be affected by issues of access, such as for remote communities, it is most often a question of families having the financial resources to acquire goods and services in the market. And for most people, the most important economic resource available to support their standard of living is regular income received, whether it be income earned from a job, income provided by government as benefits and allowances, or income such as interest, rent or dividends flowing from the ownership of assets. It is because income is so important that income distribution and measures of income inequality are analysed to assess relative advantage and disadvantage in the community. For example, while average incomes may be rising, and the average standard of living rising with them, significant proportions of the population may have steady or falling incomes resulting in their absolute and/or relative standard of living declining over time.

The ABS has been producing household income statistics for many years to support the analysis of income distribution. Summary measures are published in **Income Distribution, Australia** (Cat. no. 6523.0) while more detailed data are available on request. Several income measures are presented because not all income received by households may be available to support their standard of living, e.g., there are statutory obligations to pay income tax. Therefore estimates are published for both gross income and disposable income. Appendix 1 identifies a range of ABS household expenditure, income and wealth statistics available for analysis.

However, income is not a perfect predictor of the standard of living of households if it is measured by what people consume. People can save some of their income instead of spending it all on goods and services now, so that they shift their consumption to future periods when they will draw down their savings, or spend the income received as returns from their invested savings. At times the saving may not be discretionary, for example, when it is used to repay loans taken out at an earlier time to support earlier consumption. On the other hand, expenditure can be greater than income. Additional expenditure can be financed by running down savings made in earlier times, by selling an asset, by borrowing, or by using money received from a non-income source such as an inheritance.

While measuring income is a very good starting point in the analysis of the standard of living of the Australian community, additional measures are needed to determine how changing income levels affect the pattern of consumption of the basics of everyday Australian life, and whether other influences restrict access to these basics. This article explores aspects of deprivation and financial stress in relation to income, expenditure and various characteristics of the population, by drawing on information collected in the 1998-1999 HES.

## **DEVELOPMENT OF DEPRIVATION AND FINANCIAL STRESS INDICATORS**

While income and wealth statistics can describe the economic resources available to people to provide command over goods and services in aggregate, and expenditure statistics can describe people's associated consumption patterns, there are other issues that are relevant to understanding living standards. For example, a person's poor state of health or limited access to education facilities may lead to greater expenditure addressing their particular situation, and relatively less expenditure on other basic necessities of life than is achieved by other people who earn similar incomes or who are spending, in aggregate, about the same amount. Key users of past household expenditure surveys have identified the lack of information on the financial stress or deprivation of low income households as a significant gap in the available data. The opportunity was, therefore, taken in the 1998-1999 HES to collect data relating to deprivation and financial stress.

There are no precise definitions or an internationally agreed set of questions that can be drawn on to measure deprivation or financial stress. Therefore the ABS has drawn heavily on previous work that has been done on living standards. This work includes a survey by Travers and Richardson in 1987, followed by a study by the Australian Institute of Family Studies in 1991, and a 1995 report by Travers and Robertson as part of a Deprivation Standards Project looking at social security recipients. The ABS also carried out a pilot study prior to the 1998-1999 HES to ensure that the questions to be asked worked in the field, that is, respondents could both understand the questions and give meaningful replies.

## **ABOUT THE ABS DATA**

Because there are no objective measures of deprivation or financial stress, the topic has been explored by the ABS in a number of ways. Some of the HES questions required objective responses, but the interpretation of the responses as indicators of deprivation or financial stress is still subjective. Other questions were inherently subjective in nature. The data items available from the HES about deprivation and financial stress can be found on pages 47 to 49 of **Household Expenditure Survey, Australia: User Guide 1998-1999** (Cat. no. 6527.0), published in September 2000. The questions are also shown in Appendix 2 to this article. The **User Guide** also describes the various ways in which users can access the results of the HES, including the financial stress data.

## **DEPRIVATION INDICATORS**

The specific indicators of deprivation - that is, the items of expenditure considered to be some of the 'basics of life' that deprived households may not be able to afford - that were used in the ABS survey are:

- Could not afford a holiday for at least one week a year
- Could not afford a night out once a fortnight
- Could not afford friends or family over for a meal once a month
- Could not afford a special meal once a week
- Could only afford second hand clothes most of the time
- Could not afford leisure or hobby activities

These indicators were the six deprivation indicators, out of 37 collected for the Deprivation Standards Project (Travers and Robertson, 1995), that were most highly correlated with an alternative, factor-based index of deprivation compiled in that project report. This index was derived from a wide range of indicators including the 37 'basics of life', shortage of money (cash flow, access to finance, budget management), dissatisfaction with home and life, access to important places and perceptions of changes in standard of living.

It is important to note that the indicators included in the ABS survey are not the most fundamental 'basics of life' that were included in the full list of 37. When the social security clients surveyed for the Deprivation Standards Project (Travers and Robertson, 1995) were asked to rate the 37 'basics of life', only one of the six indicators used in the ABS survey - affording leisure or hobby activities - rated above the mean score of importance for that target group. Four of the six indicators selected by the ABS were ranked 30th or lower in order of importance in the Travers/Robertson report. However, the most highly ranked indicators in the Travers/Robertson report included such things as medical treatment and a bath or shower, where most clients had access to such goods and services. The six indicators in the ABS study were highly correlated with the factor-based index and therefore act collectively as a point of differentiation between the deprived and the more fortunate in society.

Given the nature of the indicators chosen, care needs to be exercised in interpreting individual responses in isolation from other responses provided. All individuals have their own priorities and consumption preferences and may choose quite different patterns of expenditure from a socially accepted norm of the basics of life. For example, a household may observe that it 'cannot afford' items specified in one or more of the chosen indicators (e.g., meals out or hobbies) because it devotes a considerable proportion of its budget to saving for an overseas holiday. If the household can afford an overseas holiday, however, it is difficult to envisage the household as deprived, even if it chooses to forego expenditure that other households might consider basic.

The relevance of the selected indicators as a measure of deprivation to selected population groups can also be tested by observing the take up rate of the indicators by households with higher incomes. In establishing whether households could afford each of the selected basics of life activities, the survey first asked whether or not households usually had the basic item and, if not, whether it was because they could not afford it or because they did not want it (see Appendix 2). Those households where age and disability support pensions were the principal source of income can be used as an example of where significant changes in income levels did not significantly increase the take up of some of these 'basics of life'. The proportion of these pension recipients stating that they could not afford to have friends or family over for a meal drops from 13% in the lowest income quintile (i.e., the bottom 20% of households in terms of income) to 9% in the third quintile (i.e., the middle 20% of households in terms of income). At the same time, the proportion of these welfare recipient households engaging in this activity only rose from 52% in

the lowest quintile to 54% in the third quintile. Largely offsetting the decrease in ‘deprivation’ as incomes rise was an increase in the number of households stating that they did not want this activity.

A similar pattern is observed for the criterion of having a special meal once a week, where an increase in take up of the activity, from 35% to 40% in moving from the lowest to the third quintile, is accompanied by a fall in the incidence of deprivation (from 22% to 14%) and an increase in those that identify as not wanting the activity (up from 22% to 30%). For the criterion of having a night out, the large fall in observed deprivation (from 33% to 15%) in moving from the lowest to the third quintile is accounted for by some increase in take up (from 29% to 36%) and a larger increase in those not wanting it (up from 19% to 28%). However, if only 36% of these income recipients in the third quintile engage in the activity, nearly as many don’t want it and only 15% say they can’t afford it, how ‘basic’ is it? It is possible that the answer of ‘can’t afford it’ may be a default answer for lower income groups which do not need to consider preferences across a wide range of activities that cannot be afforded, but such a default response becomes less relevant as incomes rise. Therefore the deprivation indicators chosen may not be an independent test in themselves to benchmark against income, and the nature of the answers given may be very highly correlated to income levels.

It would be possible to apply preference weights to a wider group of expenditure items for each household to identify ‘basic’ items, based on each household’s perceptions of importance, or develop weights for particular income and population groups, or overall population weights as was done in the Deprivation Standards Project (Travers and Robertson, 1995). However, the costs of collecting this additional information and the respondent burden in doing so was not considered warranted by the ABS. Instead, the ABS has focussed on compiling unweighted deprivation indicators most highly correlated with the Travers/Robertson factor-based index, together with unweighted financial stress indicators, so that wider perspectives on deprivation and financial stress can be considered.

## **FINANCIAL STRESS INDICATORS**

The financial stress questions asked in the 1998-1999 HES related to cash flow problems and financial resources. The specific indicators are:

- Household spends more money than it gets (over the past 12 months)
- Unable to raise \$2000 in a week for something important
- Could not pay electricity, gas or telephone bills on time
- Could not pay car registration or insurance on time
- Pawned or sold something
- Went without meals
- Could not afford to heat home
- Sought assistance from welfare/community organisations
- Sought financial help from friends or family

However, just as some of the six ‘deprivation’ indicators on their own may not be a good indicator of deprivation, some of the nine financial stress indicators on their own are equally problematic. For example, for the indicator ‘could not pay electricity, gas or telephone bills on time’, table 1 shows this indicator was reported by a relatively large proportion of households in the higher income quintiles, which suggests that the item does not necessarily reflect absolute incapacity to pay so much as a short deferral of payment. For many people it might be chosen as a short term cash flow management technique if there is no immediate penalty when payment is made a little late. Similarly, the indicator that households have spent more than they received over the past 12 months is clouded by prospects for adjusting expenditure over time by saving/borrowing and on

its own is not a good indicator.

On balance, while some of the indicators (such as seeking assistance from welfare/community organisations) are more severe than others, it is difficult to rank or weight them in order to derive a single measure of intensity of reported financial stress. For this analysis, it was therefore decided to give them all equal weight together with the deprivation indicators, and to simply present the results according to the total number of indicators reported.

**TABLE 1 INCIDENCE OF FINANCIAL STRESS INDICATORS, By Income Quintile, 1998-1999**

Indicator of financial stress	Income quintile						
	Lowest	Second	Third	Fourth	Highest	All households	
	% of households reporting indicator					%	'000
In the last 12 months spent more money than received	22	20	16	9	6	15	1,050
Unable to raise \$2000 in a week for something important	36	28	15	12	5	19	1,357
Could not pay electricity, gas or telephone bills on time	26	22	15	11	6	16	1,144
Could not pay car registration or insurance on time	10	8	7	5	2	7	465
Pawned or sold something	9	6	3	2	*1	4	300
Went without meals	5	5	*2	1	*1	3	195
Could not afford to heat home	5	4	1	*1	-	2	158
Sought assistance from welfare/community organisations	8	6	*2	*1	-	3	247
Sought financial help from friends or family	16	12	9	8	4	10	704
Could not afford holiday for at least one week a year	45	38	28	17	8	27	1,949
Could not afford a night out once a fortnight	32	30	20	11	3	19	1,386
Could not afford friends or family over for a meal once a month	11	9	4	2	-	5	374
Could not afford a special meal once a week	22	18	11	5	2	12	830
Could only afford second hand clothes most of the time	24	20	9	4	2	12	838
Could not afford leisure or hobby activities	18	14	7	4	1	9	647
'000							
Estimated number of households	1,425	1,424	1,424	1,424	1,425	100	7,123

\* estimate has a relative standard error of 25% to 50%

## ABS FINDINGS FROM THE 1998-1999 HES

In the results that follow the household is the unit of analysis, chosen because where all members of the household are members of the same family there is likely to be a very high degree of sharing of income and other economic resources. Where the household comprises people who are not all in the same family, there is likely to at least be significant joint expenditure on basics such as food and housing.

The income measure used in this analysis is equivalent disposable income. Disposable income is derived for each household by adding income from employment, own business, investment, property, government benefits and allowances, and any other regular income source, and then deducting estimates of income tax paid. Disposable income is adjusted to an 'equivalent' basis in recognition that people in a larger household will generally need less income per person to achieve the same standard of living as people in a smaller household. This is because some

costs such as housing costs tend not to increase proportionately in larger households and because children's needs tend to be lower than adults' needs. The 1982 OECD equivalence scale is used to make the adjustment (although the more recent OECD scale would make little difference to the results). It assigns a weight of 1 to the first adult in the household, 0.7 to each subsequent adult or non-dependent child, and 0.5 to each dependent child. For more information see Appendix 2 of **Income Distribution, Australia, 1999-2000** (Cat. no. 6523.0). Households are assigned to income quintiles by ranking them from lowest to highest equivalent disposable income and then designating the lowest 20% as quintile 1, the next 20% as quintile 2, and so on.

In these findings no distinction is drawn between deprivation and financial stress, with equal weight given to all 15 indicators. Therefore, for simplicity of presentation in the rest of this article, the term 'financial stress' is used to reflect a measure of observed incidence of any of these indicators.

Table 1 shows these 15 indicators of financial stress and their incidence in relation to income levels. In all cases the incidence of the indicators is significantly greater in the lower income quintiles than in the higher quintiles, although for 4 of the 15 indicators there is an incidence of 5% or more households in the highest quintile. As would also be expected, the more severe indicators such as 'went without meals' have a lower incidence in all quintiles than do the less severe indicators such as 'could not afford holiday for at least one week a year'.

While the patterns of incidence are along the lines that might be expected, they do raise the issue of whether it is useful to label any groups falling into the higher income quintiles as 'financially stressed'. Without doubt high income households may be in a situation where they have trouble meeting financial obligations, but that will normally be resulting from obligations for which they made a discretionary choice to enter. They will also usually have a way of leaving the obligation, for example, if they are committed to an expensive mortgage they could sell the property and buy something cheaper.

The reporting of financial stress indicators does not therefore necessarily imply that the household is in a situation of unacceptably low living standards which might warrant government or other intervention. Nevertheless, it is of interest to compare the characteristics of higher income and lower income households who reported experiencing one or more of the financial stress indicators, and within higher and lower income groups to compare the characteristics of those who reported financial stress indicators with those who did not.

In defining any level of financial stress it was obvious that incidences of just one indicator were not likely to be significant. Analysis also revealed that those indicators that might be regarded as usually pointing to more serious issues of deprivation both had relatively few people reporting them and also were those that were most likely to be reported in conjunction with other indicators, as is shown in table 2.

**TABLE 2 : MULTIPLE REPORTING OF INDICATORS OF FINANCIAL STRESS, 1998-1999**

Indicator of financial stress	Number of indicators reported by households reporting this indicator				'000
	1	2 to 4	5 or more	All households	
In the last 12 months spent more money than received	4.2	4.9	5.6	14.7	1,050
Unable to raise \$2000 in a week for something important	2	8	9	19	1,357
Could not pay electricity, gas or telephone bills on time	0.9	6.4	8.7	16.1	1,144

Could not pay car registration or insurance on time	*0.2	2.3	4	6.5	465
Pawned or sold something	*0.1	0.9	3.2	4.2	300
Went without meals	-	0.3	2.3	2.7	195
Could not afford to heat home	-	0.3	1.9	2.2	158
Sought assistance from welfare/community organisations	-	0.4	3	3.5	247
Sought financial help from friends or family	0.7	3.4	5.7	9.9	704
Could not afford holiday for at least one week a year	4.8	12.2	10.4	27.4	1,949
Could not afford a night out once a fortnight	2	8.4	9	19.5	1,386
Could not afford friends or family over for a meal once a month	*0.1	1.2	4	5.3	374
Could not afford a special meal once a week	0.7	4	7	11.7	830
Could only afford second hand clothes most of the time	0.5	3.8	7.4	11.8	838
Could not afford leisure or hobby activities	0.2	2.7	6.2	9.1	647
Total households reporting at least one indicator	16.5	21.2	12.6	50.3	3,583
		'000			
Estimated number of households	1,176	1,509	897	50	3,583

(a) Per cent of estimated total number of households in Australia, that is, 7,123,000 households.

\* estimate has a relative standard error of 25% to 50%

The incidence of reporting just one indicator was highest for the indicator 'could not afford a holiday for at least one week a year' (4.8% of households). While these households did not report any of the other financial stress indicators, they did not necessarily participate in some of the activities associated with those indicators, and may have reported that they either did not want them or for some other reason did not participate. A high level of non-participation may indicate that participation choices were being made due to financial stress, and the standard of living was low. However, three quarters of those households reporting not being able to afford a holiday did report that they spent time on leisure activities and hobbies, while two thirds reported having friends or family over for a meal once a month. About half of those households not being able to afford a holiday did have a night out once fortnight, and half had a special meal once a week. A quarter of those not being able to afford a holiday also saved money most weeks. Overall, the level of participation in these other activities suggests that those households not being able to afford a holiday as their only indicator do not appear to be financially stressed.

The next highest incidence of single indicator reporting was for those households that spent more money than they received (4.2%). However, 85% of these households enjoyed leisure activities and hobbies, 70% had holidays, 70% had friends or family over for a meal once a month, 60% had a night out once fortnight, and over half had a special meal once a week. The high level of participation in these activities suggests that those households reporting 'spending more than they received' as their sole indicator do not appear to be financially stressed.

About 2.0% of households reported not being able to afford a night out once a fortnight as their only indicator. However, around 85% of these households had holidays, 80% had leisure/hobby activities, 55% had family over for meals and 45% had a special meal once a week. Regular saving was reported by 20%, and the incidence of this sole indicator reporting was much higher in the second, third and fourth income quintiles than in the lowest. Overall, spending choices rather than financial stress seems indicated.

For the 2.0% of households reporting not being able to raise \$2,000 in a week as their only

indicator, 70% had hobbies, 60% had holidays, family and friends came over for meals to 55% of the households, and nights out were enjoyed by 55%. Half of the households had special meals and more than a quarter saved money most weeks. Whatever the circumstances that prevented access to emergency finance, a majority of these households enjoyed the activities whose absence might indicate stress, and all managed to stay on budget with a significant proportion achieving regular saving.

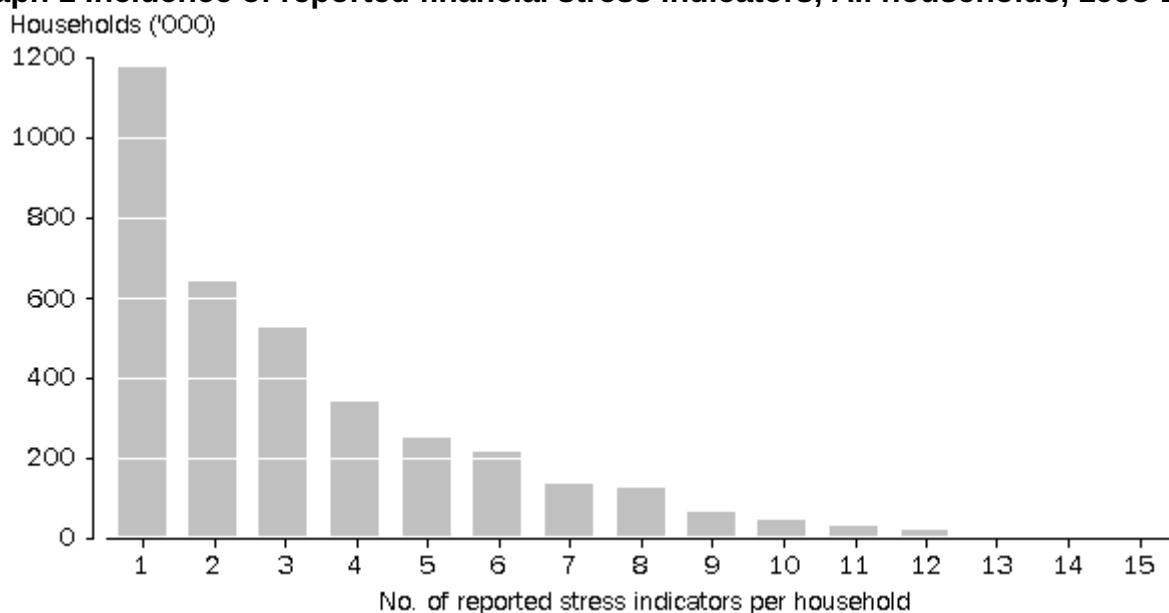
Households reporting inability to pay utility bills on time as their only indicator (0.9%) had much higher representation in the higher income quintiles than in the lowest income quintile and enjoyed high participation rates in the indicator related activities. Cash flow management rather than financial stress is indicated.

There were 0.7% of households reporting that they sought financial assistance from friends or family as their single indicator. These households were largely in the higher income quintiles, with only 9% of them in the first quintile, and 30% in the highest quintile. Overall, 20% of those seeking help also saved most weeks, and overwhelmingly the households seeking such assistance had wage and salary income as their main source of income. The proportion of households reporting not being able to afford a special meal once a week was also 0.7%, again with the lowest income quintile recording the lowest representation (11%). For neither indicator does financial stress appear to be present.

The remaining households that reported just one of the indicators collectively accounted for 1.2% of all households and display differing patterns of participation in other indicator related activities, and differing patterns of distribution across income quintiles. For simplicity, given the very small numbers involved, none are regarded in this analysis as being financially stressed.

A scale of financial stress was therefore established where the incidence of just one indicator being reported was disregarded. This decision also reflected a natural break in the incidence of indicator reporting, with 17% of households reporting just one indicator, dropping steeply to only 9% for two indicators and then falling more slowly to three (7%) and four (5%) indicators being reported (see graph 1). Therefore, for the purposes of this article, 66% of Australian households were not considered to be in financial stress.

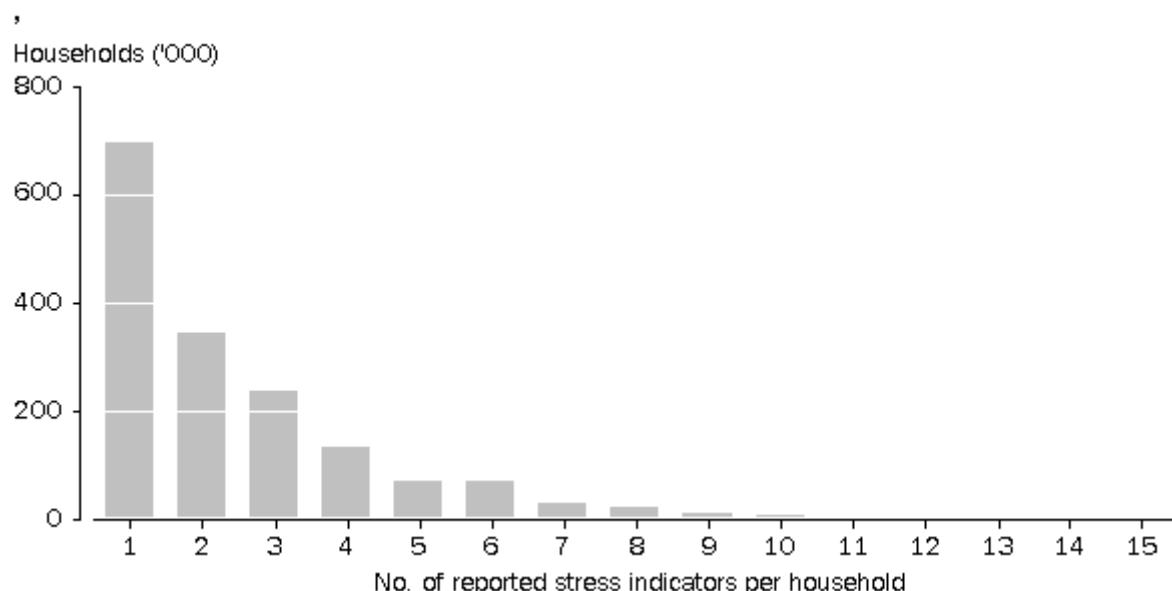
**Graph 1 Incidence of reported financial stress indicators, All households, 1998-1999**



For the remaining 34% of Australian households reporting multiple incidences of the stress

indicators, and therefore classified in this article as financially stressed, several levels of stress might be identified. However, because the mix of indicators can be quite varied, and because no weighting is attempted in this article, a simple two way split of moderate and higher stress was used. Again, the boundary was chosen to reflect a natural break in the incidence of multiple reporting of indicators, particularly for average to high income households (those in the third, fourth and highest income quintiles) (see graph 2). A household was labelled as being in 'moderate financial stress' if it reported 2 to 4 indicators, while the incidence of 5 or more indicators was labelled as 'higher financial stress'.

**Graph 2 Incidence of reported financial stress indicators, Average to high income households, 1998-1999**



On the basis of this grouping of 2 to 4 indicators (moderate stress), and 5 or more indicators (higher stress), nearly 900,000 (13%) Australian households indicated higher financial stress, and about 1.5 million (21%) indicated moderate stress. These overall stress levels based on multiple reporting of indicators differ substantially from the single indicator measures (e.g. they are much higher than the severe indicator of seeking help from welfare or community organisations (3%), and higher than the less severe indicator of seeking financial help from family or friends (10%)).

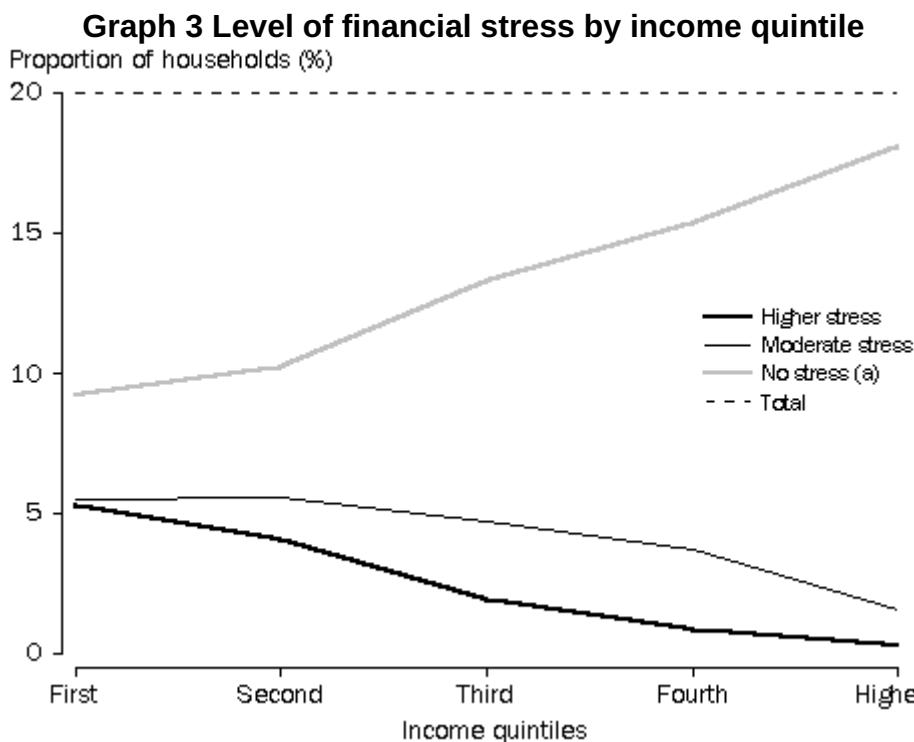
One way of testing the validity of these measures of moderate and higher stress is to look a little more closely at the reporting of grouped indicators. For example, suppose that all of the less severe indicators (say, all deprivation indicators except the ability to buy new clothes and the two financial stress indicators of spend more than receive and don't pay bills on time) were accorded much lower weight than the remaining indicators, would this change the incidence of measured financial stress? By excluding those households that only reported the less severe categories, the proportion of households in moderate stress would fall from 21% to 14% but the proportion in higher stress would remain relatively unchanged at 12%.

As can be seen in table 3 and graph 3, there is a distinct correlation between level of income and the level of financial stress indicated. Those households indicating higher stress are heavily clustered in the lowest two quintiles. The moderately stressed are also more likely to be in these two quintiles, with their proportion falling away between the second and third quintiles, but less precipitously than for the higher stressed group. Nevertheless, nearly half of the lowest income quintile did not indicate any stress, while there were substantial levels of stress indicated in the higher income quintiles.

**TABLE 3 : LEVEL OF FINANCIAL STRESS, By Income Quintile, 1998-1999**

Level of stress indicated	Income quintile					All households
	Lowest	Second	Third	Fourth	Highest	
	% of all households					% '000
Higher stress	5.3	4.1	1.9	0.9	0	12.6
Moderate stress	5.5	5.6	4.7	3.7	2	21.2
No stress(a)	9.2	10.2	13.3	15.4	18.1	66.2
Total	20	20	20	20	20	100
						897
						1,509
						4,717
						7,123

(a) Only one or no stress indicators reported.



## CHARACTERISTICS OF THE FINANCIALLY STRESSED

Tables 4 to 7 provide some insights into the incidence of financial stress reported by various groups in the population, and comparisons between households that indicated financial stress and those that did not.

In terms of the life cycle groups of special interest shown in table 4, the group indicating the greatest level of financial stress was lone parents with dependent children only, with 41% showing higher stress and a further 32% showing moderate stress. In contrast, single people and couples over 65 years of age showed the lowest levels of stress.

The pattern of financial stress for households by principal source of income is shown in table 5. Just over 40% of households principally dependent on 'other' government pensions and allowances, which includes many lone parents, showed higher stress. The only group with a greater proportion of households in this higher stress category was that of households principally dependent on unemployment, education and sickness allowances, with 45% indicating higher stress. In contrast, for households largely dependent on age and disability support pensions, the proportions were lower in both stress categories, with 16% indicating higher stress and 25% moderate stress. Households with other principal sources of income (except for the relatively

small population group with 'other private income') had lower incidences of moderate or higher stress.

**TABLE 4 : SELECTED LIFE CYCLE GROUPS, By Level Of Financial Stress, 1998-1999**

Selected life cycle group	Higher stress		No stress(a)	All households	
	%	%		%	'000
Lone person, under 35 years	21.0	21.8	57.2	100.0	327
Couple with dependent children only	13.7	24.5	61.9	100.0	1,697
One parent with dependent children only	40.8	31.5	27.6	100.0	382
Couple, reference person 65 years or over(b)	4.2	15.3	80.6	100.0	594
Lone person, 65 years or over	7.3	17.4	75.3	100.0	622
All households	12.6	21.2	66.2	100.0	7,123

(a) Only one or no stress indicators reported.

(b) Reference person is normally the higher income recipient of the couple. Where incomes are the same, it is the older person.

**TABLE 5 : PRINCIPAL SOURCE OF INCOME, By Level Of Financial Stress, 1998-1999**

Principal source of income	Higher stress		Moderate stress	No stress(a)	All households	
	%	%			%	'000
Wages and salaries	7.9	20.7	71.5	100.0	4,083	
Self employed	5.6	16.1	78.3	100.0	422	
Superannuation	-	*10.2	89.8	100.0	232	
Investment (including account interest and rental income)	*1.6	8.5	89.9	100.0	267	
Other private income	*19.7	28.4	51.9	100.0	83	
Age and disability support pensions	16.1	24.8	59.2	100.0	1,093	
Unemployment, education and sickness allowances	44.6	31.2	24.1	100.0	260	
Other government pensions and allowances	40.1	26.1	33.8	100.0	585	
Household has zero or negative income	*5.6	23.4	71.1	100.0	99	
Total	12.6	21.2	66.2	100.0	7,123	

(a) Only one or no stress indicators reported.

\* estimate has a relative standard error of 25% to 50%.

A relatively small group of approximately 100,000 households reported zero or negative income. Contrary to what might be expected, they indicated a well below average proportion of households with higher stress and about average proportion with moderate stress, providing an extreme example of where income is not a good indicator of standards of living. This group are households whose losses from their unincorporated businesses or investments equalled or were greater than their income from any other sources. In general this population can draw on economic resources other than income to maintain their standard of living, at least in the short term.

Tables 6 and 7 compare some characteristics of the households indicating different levels of financial stress, and also contrast the two lower income quintile households with the higher income quintile households.

Within the lower income quintiles, the households indicating financial stress were much more likely on average to contain dependent children, while the households not indicating stress were much more likely to comprise people over 65 years of age. Consistent with their different

demographic composition, 66% of the lower income households not indicating stress own their own home without a mortgage, compared to only 19% of the higher stressed. The higher stressed households within the two lower income quintiles, on average, spent \$90 per week (20% of their total expenditure on goods and services) on current housing costs, whereas the corresponding expenditure for those not indicating stress was only an average of \$59 per week. The latter group spent significantly more on alcoholic beverages, medical care and health expenses, and recreation, but significantly less on tobacco products.

In total, within the two lower income quintiles, the households indicating higher stress spent less on goods and services per week (\$432) than those not indicating stress (which spent \$501), even though they had higher incomes (\$373 per week compared to \$307). The discrepancies can be explained, at least in part, by the lower level of irregular receipts such as inheritances and gifts received by the households indicating higher stress (an average of \$26 per week compared to \$73 received by those not stressed) and because the households comprising older people can be expected, on average, to have more savings that can be drawn upon to maintain higher standards of living.

**TABLE 6 : AVERAGE WEEKLY HOUSEHOLD EXPENDITURE, By Income And Level Of Financial Stress, 1998-1999**

Expenditure category	Two lower income quintiles			Three higher income quintiles			Total
	Higher stress	Moderate stress	No stress(a)	Higher stress	Moderate stress	No stress(a)	
<b>Goods and services (\$/week)</b>							
Current housing costs	89.6	79.8	59.1	121.7	127.47	111	97.43
Domestic fuel and power	17.1	15.9	15.5	19.4	18.46	19	17.87
Food and non-alcoholic beverages	91.1	100.6	101.5	121.7	137.96	149.08	126.99
Alcoholic beverages	7.1	9.0	12.4	19.0	24.47	28.4	20.43
Tobacco products	15.5	10.5	5.9	19.1	16	10.08	10.74
Clothing and footwear	15.3	17.8	20.8	28.9	32.39	43.34	31.9
Household furnishings and equipment	21.1	28.9	34.2	39.3	41.38	53.35	42.22
Household services and operation	34.7	30.9	34.0	46.3	45.62	46.77	41.26
Medical care and health expenses	11.9	17.5	28.5	25.3	32	42.36	32.47
Transport	57.41	71.42	79.97	130.92	147.87	149.42	117.82
Recreation	34.73	48.61	64.1	73.34	86.76	121.04	88.81
Personal care	6.72	8.67	10.23	11.25	13.13	18.1	13.73
Miscellaneous goods and services	29.79	30.38	34.6	62	72.29	75.13	57.31
Total goods and services expenditure	431.94	469.9	500.82	718.72	796.4	867.37	698.97
<b>Selected other payments (\$/week)</b>							
Income tax	16.47	26.63	19.37	149.4	198.6	303.75	175.09
Mortgage repayments-principal	7.89	12.26	13.74	*21.25	35.09	39.75	27.58
Superannuation and life insurance	2.64	5.04	6.63	17.62	21.12	38.89	22.98

(a) Only one or no stress indicators reported.

\* estimate has a relative standard error of 25% to 50%.

Little difference is observed in the incidence of all levels of financial stress between households in capital cities, other urban and rural areas within each income grouping. However, 56% of rural

households fall into the two lower income quintiles, compared to 36% of capital city households and 45% of other urban households.

**TABLE 7 : CHARACTERISTICS OF HOUSEHOLDS, By Income And Level Of Financial Stress, 1998-1999**

Selected characteristics	Two lower income quintiles			Three higher income quintiles			Total
	Higher stress	Moderate stress	No stress(a)	Higher stress	Moderate stress	No stress(a)	
Household financial characteristics (\$)							
Average weekly income	373	392	307	881	1026	1293	874
Weekly average of irregular receipts(b)	26	40	73	**55	50	97	73
Average value of loans outstanding	12531	15538	11474	29709	41706	34589	26455
Household member characteristics							
Average number of employed persons in household	0.5	0.6	0.6	1.4	1.7	1.7	1.2
Average number of persons in the household							
Under 18 years	1.27	0.93	0.52	0.78	0.79	0.50	0.66
18 to 64 years	1.50	1.43	1.06	1.91	1.96	1.86	1.63
65 years and over	0.15	0.36	0.72	**0.05	0.07	0.21	0.30
Total	2.92	2.72	2.30	2.74	2.83	2.57	2.60
Household composition (% of households)							
Couple, one family							
Couple only	10.6	19.5	33.9	10.8	18.8	27.0	24.6
Couple with dependent children only	27.3	26.6	18.4	21.6	28.5	23.9	23.8
Other couple, one family households	7.7	6.7	7.5	13.7	13.2	15.2	11.8
One parent, one family with dependent children	23.9	11.9	3.5	13.7	6.5	2.3	6.4
Other family households	3.7	5.2	3.3	*8.3	8.9	5.6	5.4
Lone person	26.1	27.7	31.3	26.8	17.2	21.3	24.2
Group	**0.6	*2.3	2.2	*5.2	6.9	4.7	3.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Household tenure type (% of households)							
Owners without a mortgage	19.0	36.6	65.6	14.2	18.4	40.1	39.7
Owners with a mortgage	18.0	22.3	16.3	30.9	43.4	36.4	29.7
Renters from state or territory housing authority	19.6	13.5	4.8	*10.1	3.5	1.0	5.4
Renters-other	40.5	24.7	9.6	41.2	32.6	20.8	22.7
Other	*2.8	3.0	3.8	*3.7	*2.2	1.7	2.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Broad geographic area (% of households)							
Capital city	59.0	59.2	54.1	70.5	65.3	68.8	63.6
Other urban	29.1	29.7	29.4	22.0	27.5	23.8	26.4
Rural	11.9	11.1	16.5	*7.5	7.3	7.4	10.0
Total households	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Estimated number of households in population ('000)							
Capital city	396.5	470.0	748.1	158.4	466.9	2293.1	4533.0
Other urban	195.5	235.7	407.4	49.5	196.4	792.8	1877.2
Rural	79.9	88.4	228.1	*17.0	52.0	247.4	712.6
Total households	672.0	794.0	1383.5	224.8	715.3	3333.2	7122.8

(a) Only one or no stress indicators reported.

(b) Includes receipts such as inheritances and gifts.

\* estimate has a relative standard error of 25% to 50%.

\*\* estimate has a relative standard error greater than 50%.

Within the three higher income quintiles, the households indicating financial stress are not so clearly differentiated from the households not indicating stress, although some of the differences

are similar to those for the lower income quintiles. For all levels of stress, households in the higher income quintiles are more likely to be owners with a mortgage, that is, they are buying their own home. Households indicating moderate stress levels have the greatest proportion buying their own home (43% compared to 31% for those indicating higher stress and 36% for those not indicating stress) and they have a correspondingly higher average value of loans outstanding. Interestingly, in both lower and higher income groupings, households indicating higher stress have a lower average value of loans outstanding than do those indicating moderate levels of stress.

One of the less severe financial stress indicators used in the analysis above was that the household spent more than it received in the previous 12 months. It is of interest to see the relationship between a household's reported ability to save and the other indicators of stress. Table 8 shows an expected result that households in the lower income quintiles were less likely to be able to save most weeks than the households in the higher income quintiles. It also shows that the households in the lower quintiles reporting moderate or higher financial stress were also a little less likely to spend more money than they received when compared to the higher income households. This perhaps reflects the greater capacity of the higher income households to run down financial assets or borrow to maintain higher expenditure.

Table 9 shows the relationship between reported financial stress and whether living standards of the household are perceived to have improved or not over the past two years (an indicator not used in the above analyses). Over half of higher stressed, lower income households and nearly half the higher stressed, higher income households reported that their living standards were lower than 2 years earlier.

**TABLE 8 : HOUSEHOLD'S ABILITY TO SAVE, By Income And Level Of Financial Stress, 1998-1999(a)**

Ability to save over last 12 months	Two lower income quintiles			Three higher income quintiles			Total
	Higher stress %	Moderate stress %	No stress (b) %	Higher stress %	Moderate stress %	No stress (b) %	
Spend more money than receive	43.4	21.4	10.3	46.5	25.5	4.8	14.7
Just break even most weeks	55.8	71.4	60.4	50.4	64.2	42.4	52.8
Able to save most weeks	*0.8	7.1	29.3	*3.1	10.3	52.8	32.4
Total households	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Note that 'spend more money than receive' has been retained in the stress measures shown in this table, as well as appearing in the stub, in order to keep the table consistent with the other data in this analysis.

(b) Only one or no stress indicators reported.

\* estimate has a relative standard error of 25% to 50%.

**TABLE 9 : COMPARISON WITH STANDARD OF LIVING TWO YEARS EARLIER, By Income And Level Of Financial Stress, 1998-1999**

Ability to save over last 12 months	Two lower income quintiles			Three higher income quintiles			Total
	Higher stress %	Moderate stress %	No stress (b) %	Higher stress %	Moderate stress %	No stress (b) %	
Now better	16.1	14.2	18.3	21.9	28	38.5	28.2
The same	27.9	38.5	55.8	27	34.2	44	42.6
Now worse	53.2	44.1	24.4	47.9	32.7	14.2	26.1
Household newly formed	*2.8	3.2	*1.4	*3.2	5.1	3.2	3
Total households	100	100	100	100	100	100	100

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(a) Only one or no stress indicators reported.  
\* estimate has a relative standard error of 25% to 50%.

## CONCLUSION

The deprivation and financial stress indicators collected in the 1998-1999 HES can be used to provide an insight into the standard of living of various groups in the Australian community that goes beyond simple comparisons of relative income. This article has tabulated some results using these indicators in combination with income levels.

Undoubtedly, there will be interest in how these indicators change over time. As the 1998-1999 HES was the first time this data was collected in Australia, it is not possible to assess how these indicators compare with past periods. The ABS is planning to include some of the financial stress indicators (but not the deprivation indicators) in the new General Social Survey, to be conducted in 2002, and is considering whether to repeat both sets of indicators in the next HES, in 2003-2004. The ABS would therefore welcome comments on whether the existing indicators add value to the understanding of the living standards of the Australian community and on whether there is a need to refine these indicators in future collections.

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## FURTHER INFORMATION

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## ENDNOTES

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## APPENDIX 1

### ABS PUBLICATIONS CONTAINING HOUSEHOLD EXPENDITURE, INCOME AND WEALTH STATISTICS

The ABS has published expenditure and income statistics relating to households for many years.

The **Australian System of National Accounts** (Cat. no. 5204.0) shows how the household sector interrelates with the other sectors of the economy and provides an overview of the economic activity of households in a series of accounts. There are separate accounts detailing consumption expenditure by commodity, income by source of income, use of income, capital transactions, and financial transactions. There is also a balance sheet recording the assets and liabilities of households.

The national accounts provide comprehensive information about the household sector in aggregate, but do not provide information about the variations in the expenditure, income and wealth of different types of households, such as comparisons between low income and high income households, sole parent and couple households, renting and home-owning households, and so on. The primary sources of this type of information are household surveys.

The ABS has been an international leader in developing household survey statistics of income and expenditure. **A Provisional Framework for Household Income, Consumption, Saving and Wealth, 1995** (Cat. no. 6549.0) was developed by the ABS to describe how the range of flows and stocks of household economic resources can be brought together to provide a comprehensive measure of economic well-being for individual households. More recently, the ABS initiated and contributed to the deliberations of the international Expert Group on Household Income Statistics (Canberra Group). The final report of the Canberra Group extends the work of the ABS's **Provisional Framework** in the area of income statistics, and can be found at the website [lisweb.ceps.lu/links/canberra/finalreport.pdf](http://lisweb.ceps.lu/links/canberra/finalreport.pdf).

The ABS had been conducting household surveys for many years prior to the development of formal, integrated frameworks for these data sets. Surveys of income distribution commenced in 1968-1969 and surveys of household expenditure started in 1974-1975. The most recent publications with an overview of survey results are **Income Distribution, Australia, 1999-2000** (Cat. no. 6523.0) and **Household Expenditure Survey, Australia: Summary of Results, 1998-1999** (Cat. no. 6530.0). Survey data are also available to users through more detailed publications, information consultancies which can provide tabulations tailored to user requirements, and confidentialised unit record files.

Information from the income and expenditure surveys has been used as the basis of many studies of income distribution. Recent short term analysis shows little movement in levels of inequality. For example, **Income Distribution, Australia, 1999-2000** included figures which showed no significant change in income shares between low income recipients and high income recipients in the period 1994-1995 to 1999-2000. Using the unit of analysis known as the 'income unit', i.e., single people, or couples or sole parents and their dependent children, in 1999-2000 the bottom 20% of income recipients accounted for about 7% of total income, whereas the top 20% accounted for about 40%.

Analysts have pointed to uncertainties resulting from the impact of choosing different income measures, from the impact of choosing different units or data items as the focus of analysis, and from the impact of methodological changes over time in the way data has been collected. The ABS and the Social Policy Research Centre of the University of New South Wales have recently commenced a joint project, supported by the Australian Research Council, to resolve some of these uncertainties.

An aspect of income distribution of particular interest is the contribution to living standards that flows from the provision of services to households by government on a free or subsidised basis. The main such services are in the areas of education, health and housing. The ABS uses the household expenditure survey data to model the impact of the provision of these services, as well as the impact on income distribution of the tax regime. The results are published in **Household Expenditure Survey: The Effects of Government Benefits and Taxes on Household Income**. The publication based on the 1998-1999 HES is expected to be released in June this

year.

Statistics on the distribution of wealth between households are less developed, and the ABS is also undertaking research in this area.

## APPENDIX 2

### FINANCIAL STRESS QUESTIONS IN THE 1998-1999 HES

These questions were asked of one person in each household. The person was either the reference person or their spouse, randomly picked. Note that the questions were introduced as relating to the household's 'standard of living', rather than 'financial stress'.

#### SAVING EXPERIENCE

Over the last 12 months, which of the following best describes your household's financial situation?

- Spend more money than we get
- Just break even most weeks
- Able to save money most weeks

Comparison with standard of living 2 years earlier

- Better than 2 years ago
- The same as 2 years ago
- Worse than 2 years ago
- Not applicable

#### INABILITY TO AFFORD NOMINATED ITEMS

Which of the following do members of your household usually have?

- A holiday away from home for at least one week a year
- A night out once a fortnight
- Friends or family over for a meal once a month
- A special meal once a week
- Buy new and not second hand clothes, most of the time
- Spend time on leisure or hobby activities
- No/none

For each item which you don't have, is it because

- Don't want it
- Can't afford it
- Other reason

## **ACCESS TO EMERGENCY FINANCE**

If all of a sudden you had to get \$2000 for something important, could the money be obtained within a week?

- Yes
- No

Which of the following sources could your household use?

- Own savings
- Loan from bank, building society or credit union
- Loan from finance company (high interest)
- Loan on credit card
- Loan from family or friends
- Loan from welfare or community organisation
- Sell something
- Other sources

If more than one possible, which would be the most likely to be used?

## **OTHER FINANCIAL STRESS INDICATORS**

Over the past year have any of the following happened to your household because of a shortage of money?

- Could not pay electricity, gas or telephone bills on time
- Could not pay for car registration or insurance on time
- Pawned or sold something
- Went without meals
- Unable to heat home
- Sought assistance from welfare/community organisations
- Sought financial help from friends or family
- No/none

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